

Supplemental Table 1. Distribution of race/ethnicity by study site and year, Early Autism and Developmental Disabilities Monitoring Network, 7 sites, United States, 2010, 2012, and 2014

	Site	Total	Non-Hispanic White		Non-Hispanic Black		American Indian/Alaska Native		Asian/Pacific Islander		Hispanic	
			N	%	N	%	N	%	N	%	N	%
2010												
Age 4	Arizona	9,265	4,835	52.2	340	3.7	291	3.1	289	3.1	3,510	37.9
	Missouri	12,095	7,169	59.3	3,698	30.6	37	0.3	635	5.3	556	4.6
	New Jersey	17,860	5,991	33.5	5,858	32.8	50	0.3	844	4.7	5,117	28.7
	Utah	10,944	6,507	59.5	391	3.6	103	0.9	664	6.1	3,279	30
	Wisconsin	8,303	5,857	70.5	888	10.7	26	0.3	419	5	1,113	13.4
	Total	58,467	30,359	51.9	11,175	19.1	507	0.9	2,851	4.9	13,575	23.2
Age 8	Arizona	9,198	5,089	55.3	355	3.9	248	2.7	293	3.2	3,213	34.9
	Missouri	12,452	7,648	61.4	3,711	29.8	34	0.3	567	4.6	492	4
	New Jersey	17,780	6,299	35.4	6,061	34.1	32	0.2	858	4.8	4,530	25.5
	Utah	9,082	4,894	53.9	321	3.5	111	1.2	573	6.3	3,183	35
	Wisconsin	8,215	5,990	72.9	841	10.2	31	0.4	392	4.8	961	11.7
	Total	56,727	29,920	52.7	11,289	19.9	456	0.8	2,683	4.7	12,379	21.8
2012												
Age 4	Arizona	9,621	5,389	56	338	3.5	287	3	260	2.7	3,347	34.8
	Missouri	11,878	6,835	57.5	3,800	32	37	0.3	618	5.2	588	5
	New Jersey	18,223	5,751	31.6	5,974	32.8	33	0.2	913	5	5,552	30.5
	Utah	11,398	6,452	56.6	449	3.9	135	1.2	740	6.5	3,622	31.8
	Wisconsin	8,336	5,837	70	927	11.1	28	0.3	453	5.4	1,091	13.1
	Total	59,456	30,264	50.9	11,488	19.3	520	0.9	2,984	5	14,200	23.9
Age 8	Arizona	9,126	5,305	58.1	359	3.9	270	3	325	3.6	2,867	31.4
	Missouri	12,773	7,558	59.2	3,982	31.2	31	0.2	644	5	558	4.4
	New Jersey	18,043	6,105	33.8	5,874	32.6	52	0.3	900	5	5,112	28.3
	Utah	10,576	6,225	58.9	374	3.5	106	1	704	6.7	3,167	29.9
	Wisconsin	8,349	6,026	72.2	841	10.1	21	0.3	403	4.8	1,058	12.7
	Total	58,867	31,219	53	11,430	19.4	480	0.8	2,976	5.1	12,762	21.7
2014												
Age 4	Arizona	9,624	5,345	55.5	335	3.5	280	2.9	343	3.6	3,321	34.5
	Colorado	8,438	3,156	37.4	943	11.2	61	0.7	290	3.4	3,988	47.3
	Missouri	11,613	6,855	59	3,558	30.6	27	0.2	648	5.6	525	4.5
	New Jersey	18,112	5,332	29.4	5,987	33.1	54	0.3	888	4.9	5,851	32.3
	North Carolina	14,893	6,663	44.7	4,474	30	52	0.3	678	4.6	3,026	20.3
	Wisconsin	8,207	5,822	70.9	825	10.1	27	0.3	486	5.9	1,047	12.8
	Total	70,887	33,173	46.8	16,122	22.7	501	0.7	3,333	4.7	17,758	25.1
Age 8	Arizona	9,478	5,340	56.3	321	3.4	277	2.9	296	3.1	3,244	34.2
	Colorado	8,022	2,603	32.4	1,018	12.7	60	0.7	322	4	4,019	50.1
	Missouri	12,205	7,186	58.9	3,793	31.1	39	0.3	626	5.1	561	4.6
	New Jersey	18,019	5,788	32.1	5,888	32.7	51	0.3	955	5.3	5,337	29.6
	North Carolina	15,843	7,346	46.4	4,563	28.8	57	0.4	736	4.6	3,141	19.8
	Wisconsin	8,341	5,868	70.4	842	10.1	33	0.4	427	5.1	1,171	14
	Total	71,908	34,131	47.5	16,425	22.8	517	0.7	3,362	4.7	17,473	24.3

Supplemental Table 2. Percentage of children with co-occurring intellectual disability* among children aged 4 and 8 years with autism spectrum disorder, Early Autism and Developmental Disabilities Monitoring Network, 4 sites†, United States, 2010, 2012, and 2014

	2010		2012		2014		2010-2014 p-value for trend in % with ID
	Total No. with cognitive test scores (% of all children with ASD)	No. (%) with co-occurring ID	Total No. with cognitive test scores (% of all children with ASD)	No. (%) with co-occurring ID	Total No. with cognitive test scores (% of all children with ASD)	No. (%) with co-occurring ID	
Site							
Arizona							
Age 4	105 (85.4)	43 (41.0)	80 (62.5)	33 (41.3)	90 (69.2)	45 (50.0)	P=0.21
Age 8	145 (93.5)	47 (32.4)	150 (92.0)	32 (21.3)§	138 (86.2)	36 (26.1)§	P=0.22
New Jersey							
Age 4	291 (82.7)	143 (49.1)	337 (83.6)	149 (44.2)	418 (81.3)	189 (45.2)	P=0.34
Age 8	314 (77.7)	91 (29.0)§	329 (71.7)	96 (29.2)§	371 (72.3)	108 (29.1)§	P=0.97
North Carolina							
Age 4	¶	¶	¶	¶	142 (61.5)	64 (45.1)	**
Age 8	¶	¶	¶	¶	214 (87.3)	62 (29.0)§	**
Utah							
Age 4	97 (73.5)	40 (41.2)	¶	¶	¶	¶	**
Age 8	160 (84.2)	36 (22.5)§	¶	¶	¶	¶	**

Abbreviations: ASD = autism spectrum disorder; ID = intellectual disability

*defined as a score ≤70 on the most recent standardized intellectual ability test

†including sites for which at least 60% of children with autism spectrum disorder had intellectual ability test score data for at least one surveillance year

§Pearson chi-square p<0.01 for comparison with children aged 4 years

¶No or insufficient (<60% with intellectual ability test scores) data for site and surveillance year

** Trend not estimated for sites with less than three years of data

Supplemental Table 3. Median age (in months) at earliest known comprehensive evaluation and percentage evaluated by age 36 months among children aged 4 years with autism spectrum disorder*, by sex and race/ethnicity, Early Autism and Developmental Disabilities Monitoring Network, 7 sites, United States, 2010, 2012, and 2014

	2010			2012			2014			p-value for trend over time in proportion with evaluation by age 36 months
	Median Age (mos)	Total no. with ASD	No. (%) with evaluation ≤36 mos	Median Age (mos)	Total no. with ASD	No. (%) with evaluation ≤36 mos	Median Age (mos)	Total no. with ASD	No. (%) with evaluation ≤36 mos	
Site										
Arizona	34.0	95	58 (61.1)	32.0	110	74 (67.3)	32.5	110	76 (69.1)	P=0.23
Colorado	†	†	†	†	†	†	34.0	93	75 (80.6)	§
Missouri	30.0	88	61 (69.3)	37.0	80	39 (48.8)	29.0	90	67 (74.4)	P=0.46
New Jersey	26.0	307	235 (76.5)	29.0	344	271 (78.8)	34.0	403	269 (66.7)	p=0.002
North Carolina	†	†	†	†	†	†	23.0	198	164 (82.8)	§
Utah	32.0	107	75 (70.1)	32.0	115	72 (62.6)	†	†	†	§
Wisconsin	27.5	58	40 (69.0)	29.0	109	80 (73.4)	24.0	90	80 (88.9)	¶
Sex										
Male										
Arizona	35.0	69	39 (56.5)	32.0	92	62 (67.4)	31.5	88	61 (69.3)	P=0.11
Colorado	†	†	†	†	†	†	34.0	79	63 (79.7)	§
Missouri	31.0	67	46 (68.7)	35.0	63	33 (52.4)	29.0	69	49 (71.0)	P=0.76
New Jersey	26.0	253	188 (74.3)	29.0	267	208 (77.9)	33.0	316	208 (65.8)	P=0.02
North Carolina	†	†	†	†	†	†	23.5	164	137 (83.5)	§
Utah	32.0	79	55 (69.6)	32.5	88	53 (60.2)	†	†	†	§
Wisconsin	28.0	39	25 (64.1)	29.0	85	62 (72.9)	24.0	73	64 (87.7)	¶
Female										
Arizona	34.0	26	19 (73.1)	29.0	18	12 (66.7)	34.0	22	15 (68.2)	P=0.70
Colorado	†	†	†	†	†	†	32.5	14	12 (85.7)	§
Missouri	28.0	21	15 (71.4)	40.0	17	6 (35.3)	25.0	21	18 (85.7)	p=0.33
New Jersey	25.5	54	47 (87.0) **	30.0	77	63 (81.8)	34.0	87	61 (70.1)	p=0.01
North Carolina	†	†	†	†	†	†	21.5	34	27 (79.4)	§
Utah	33.5	28	20 (71.4)	30.0	27	19 (70.4)	†	†	†	§
Wisconsin	27.0	19	15 (78.9)	23.0	24	18 (75.0)	20.0	17	16 (94.1)	¶
Race/ethnicity										
NHW										
Arizona	35.0	58	36 (62.1)	30.0	68	48 (70.6)	31.0	66	47 (71.2)	P=0.28

Colorado	†	†	†	†	†	†	34.0	31	23 (74.2)	§
Missouri	27.0	64	50 (78.1)	34.0	49	26 (53.1)	27.0	45	34 (75.6)	P=0.56
New Jersey	24.0	97	80 (82.5)	26.0	116	97 (83.6)	31.0	120	92 (76.7)	P=0.26
North Carolina	†	†	†	†	†	†	21.5	82	70 (85.4)	§
Utah	31.0	79	58 (73.4)	33.0	77	44 (57.1)	†	†	†	§
Wisconsin	26.5	46	35 (76.1)	28.0	77	56 (72.7)	23.0	69	61 (88.4)	¶
NHB										
Arizona	†	†	†	23.5	6	6 (100.0)	†	†	†	§
Colorado	†	†	†	†	†	†	35.0	13	9 (69.2)	§
Missouri	34.0	11	6 (54.5)	40.0	27	10 (37.0)	30.0	31	22 (71.0)	P=0.10
New Jersey	30.0	87	56 (64.4) ††	34.0	97	62 (63.9) ††	35.0	122	76 (62.3) ††	P=0.75
North Carolina	†	†	†	†	†	†	24.5	66	52 (78.8)	§
Utah	†	†	†	†	†	†	†	†	†	§
Wisconsin	†	†	†	†	†	†	24.0	6	6 (100.0)	§
Hispanic										
Arizona	34.0	27	15 (55.6)	35.0	29	15 (51.7)	34.0	35	24 (68.6)	P=0.27
Colorado	†	†	†	†	†	†	34.0	41	36 (87.8)	§
Missouri	†	†	†	†	†	†	†	†	†	§
New Jersey	26.0	102	81 (79.4)	26.0	115	98 (85.2)	34.0	134	84 (62.7)§	P=0.002
North Carolina	†	†	†	†	†	†	25.0	29	26 (89.7)	§
Utah	34.0	23	14 (60.9)	31.0	26	20 (76.9)	†	†	†	§
Wisconsin	†	†	†	25.0	17	13 (76.5)	29.0	9	8 (88.9)	§

Abbreviations: NHW = non-Hispanic white; NHB = non-Hispanic black

*Restricted to children born in the state where the surveillance site was located

†No or insufficient (cell size <5) data for site and surveillance year

§Trend not estimated for sites with less than three years of data

¶Trend not estimated due to inclusion of Early Intervention records in 2014 but not in earlier years

**p<0.05 for comparison with males

††p<0.05 for comparison with non-Hispanic white

Supplemental Table 4. Comparison of autism spectrum disorder prevalence over time among children aged 4 and 8 years, Early and Total Autism and Developmental Disabilities Monitoring Network, 4 sites, United States, 2010, 2012, and 2014

Site	2010		2012		2014		2010-2014
	Prevalence (95% CI)	Prevalence ratio 8yo:4yo* (95% CI)	Prevalence (95% CI)	Prevalence ratio 8yo:4yo (95% CI)	Prevalence (95% CI)	Prevalence ratio 8yo:4yo (95% CI)	Prevalence ratio 2014:2010
Arizona							
Age 4	13.3 (11.1, 15.8)		13.3 (11.1, 15.8)		13.5 (11.3, 16.0)		1.0 (0.8, 1.3)
Age 8 (Early ADDM)	16.9 (14.3, 19.7)	1.3 (1.0, 1.6)	17.9 (15.2, 20.8)	1.3 (1.1, 1.7)	16.9 (14.4, 19.7)	1.2 (1.0, 1.6)	1.0 (0.8, 1.2)
Age 8 (Total ADDM)	15.7 (14.4, 17.1)		15.1 (13.8, 16.5)		14.0 (12.6, 15.5)		
Colorado							
Age 4	-	-	-	-	13.4 (11.0, 16.1)		-
Age 8 (Early ADDM)	-	-	-	-	13.8 (11.4, 16.7)	1.0 (0.8, 1.3)	-
Age 8 (Total ADDM)	-	-	-	-	13.9 (12.8, 15.1)		-
Missouri							
Age 4	8.5 (7.0, 10.3)		8.1 (6.5, 9.9)		9.6 (7.9, 11.6)		1.1 (0.9, 1.5)
Age 8 (Early ADDM)	16.6 (14.4, 19.0)	2.0 (1.5, 2.5)	12.4 (10.6, 14.5)	1.5 (1.2, 2.0)	15.6 (13.5, 18.0)	1.6 (1.3, 2.0)	0.9 (0.8, 1.1)
Age 8 (Total ADDM)	14.2 (12.7, 15.7)		11.6 (10.3, 13.0)		14.1 (12.6, 15.6)		
New Jersey							
Age 4	19.7 (17.7, 21.9)		22.1 (20.0, 24.4)		28.4 (26.0, 30.9)		1.4 (1.3, 1.6)
Age 8 (Early ADDM)	22.7 (20.6, 25.0)	1.2 (1.0, 1.3)	25.4 (23.2, 27.9)	1.2 (1.0, 1.3)	28.5 (26.1, 31.0)	1.0 (0.9, 1.1)	1.3 (1.1, 1.4)
Age 8 (Total ADDM)	21.9 (20.3, 23.6)		24.6 (23.0, 26.4)		29.3 (27.5, 31.2)		
North Carolina							
Age 4	-	-	-	-	15.5 (13.6, 17.6)		-
Age 8 (Early ADDM)	-	-	-	-	15.5 (13.6, 17.5)	1.0 (0.8, 1.2)	-
Age 8 (Total ADDM)	-	-	-	-	17.4 (15.9, 19.0)		-
Utah							
Age 4	12.1 (10.1, 14.3)		13.3 (11.3, 15.6)		-	-	-
Age 8 (Early ADDM)	20.9 (18.1, 24.1)	1.7 (1.4, 2.2)	26.3 (23.3, 29.6)	2.0 (1.6, 2.4)	-	-	-
Age 8 (Total ADDM)	18.6 (16.9, 20.4)		17.3 (15.7, 19.0)		-	-	-
Wisconsin							
Age 4	8.8 (6.9, 11.1)		15.4 (12.8, 18.3)		13.2 (10.8, 15.9)		†
Age 8 (Early ADDM)	16.4 (13.8, 19.5)	1.9 (1.4, 2.5)	20.6 (17.6, 23.9)	1.3 (1.1, 1.7)	19.7 (16.8, 22.9)	1.5 (1.2, 1.9)	1.2 (1.0, 1.5)
Age 8 (Total ADDM)	9.3 (8.3, 10.3)		10.8 (9.7, 11.9)		14.1 (12.9, 15.4)		

Abbreviations: CI = confidence interval

*Prevalence ratio for 8-year-old compared with 4-year-old children restricted to those living in the Early ADDM Network study area

†Prevalence ratio not estimated due to inclusion of Early Intervention records in 2014 but not in previous years

Note: 95% confidence limits for 8-year-old children in the total ADDM Network may differ slightly from those previously published due to differences in estimation methods